



RAN-2403000503018001

B.Sc. (Microbiology) (Sem. III) Examination November - 2025

Major - 1 - Bioscience (Microbiology) Paper - III

BM-MJ-301 Prokaryotic cell structure.

સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

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Student's Signature

Q. 1 Multiple choice questions. (Any Five)

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- Halophiles live in environments with:
 - High temperature
 - High salt concentration
 - Low pH
 - No oxygen
- The two subunits of a 70S ribosome are:
 - 60S and 40S
 - 50S and 30S
 - 70S and 10S
 - 80S and 20S
- Select the wrong statement about plasmids?
 - It is extrachromosomal
 - It is double stranded
 - Its replication depends upon host cell
 - It is closed and circular DNA
- What helps in the heat resistance of the endospore?
 - calcium-DPA complex
 - water
 - methylen
 - calcium
- Bacteria having clusters of flagella at both poles of cells are known as?
 - Lophotrichous
 - Peritrichous
 - Amphitrichous
 - Monotrichous
- Bacterial capsule is chemically composed of
 - Polypeptide
 - Polynucleotides
 - Polysaccharides
 - Polypeptides or polysaccharides

Q. 2 Answer the following questions.

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- Explain in brief about bacterial plasmid.
- Describe in brief Gram-ve bacterial cell wall.

OR

Q. 2 Write an essay on - bacterial cell membrane.

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Q. 3 Discuss in detail structure and function of bacterial flagella.

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OR

Q. 3. Answer the following questions.

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- Describe in brief about volutin granules.
- Write a note on Capsule and slime layer.